



FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1875.2200001APPLICATION NO.  
09/997,272APPLICANT  
Zhao et al.FILING DATE  
November 30, 2001GROUP  
2827

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
OAE	AA1	10/284,340		Zhao et al.			10/31/2002
	AB1	10/201,891	12/12/2002	Zhao et al.			7/25/2002
	AC1	10/200,336	12/12/2002	Khan et al.			7/23/2002
	AD1	10/197,438	12/12/2002	Zhao et al.			7/18/2002
	AE1	10/201,309	12/19/2002	Khan et al.			7/24/2002
	AF1	10/201,893	12/12/2002	Zhao et al.			7/25/2002
	AG1	10/200,255	12/19/2002	Zhao et al.			7/23/2002
	AH1	10/284,312	3/27/2003	Zhao et al.			10/31/2002
	AI1	10/253,600		Zhong et al.			9/25/2002
	AJ1	10/284,371	8/7/2003	Khan et al.			10/31/2002
AK1	10/284,349	8/7/2003	Khan et al.			10/31/2002	

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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	AM1						Yes No
	AN1						Yes No
	AO1						Yes No
	AP1						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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USCF Rev. 1/95

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
<i>OK</i>	AA2	10/284,166	8/7/2003	Zhao et al.			10/31/2002
<i>OK</i>	AB2	10/284,366	8/7/2003	Zhao et al.			10/31/2002
<i>OK</i>	AC2	10/101,751		Zhao et al.			3/21/2002
	AD2						
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	AK2						

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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10/13/03

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## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18  
Stylesheet Version v18.0

Title of Invention	Thermally and Electrically Enhanced Ball Grid Array Packaging																																																																																																																
<p>Application Number: 09/997272 Confirmation Number: 2600 First Named Applicant: Sam Zhao Attorney Docket Number: 1875.2200001 Search string: ( 3790866 or 5045921 or 5397917 or 5438216 or 5490324 or 5583378 or 5578869 or 5642261 or 5648679 or 5736785 or 5796170 or 5798909 or 5801432 or 5843808 or 5889324 or 5903052 or 5972734 or 5999415 or 6028358 or 6057601 or 6069407 or 6114761 or 6117797 or 6122171 or 6140707 or 6212070 or 6242279 or 6347037 or 6362525 or 6380623 or 20020109226 or 20020180040 or 20020053731 or 20020072214 or 20020096767 or 20020098617 ).pn.</p> <p>RECEIVED JUL - 9 2003 TECHNOLOGY CENTER 2800</p> <p><b>US Patent Documents</b></p> <p>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</p> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Patent No.</th><th>Date</th><th>Patentee</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td>107</td><td>1</td><td>3790866</td><td>1974-02-05</td><td>Meyer et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>2</td><td>5045921</td><td>1991-09-03</td><td>Lin et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>3</td><td>5397917</td><td>1995-03-14</td><td>Ommen et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>4</td><td>5438216</td><td>1995-08-01</td><td>Juskey et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>5</td><td>5490324</td><td>1996-02-13</td><td>Newman</td><td></td><td></td><td></td></tr><tr><td></td><td>6</td><td>5583378</td><td>1996-12-10</td><td>Marrs et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>7</td><td>5578869</td><td>1996-11-26</td><td>Hoffman et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>8</td><td>5642261</td><td>1997-06-24</td><td>Bond et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>9</td><td>5648679</td><td>1997-07-15</td><td>Chillara et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>10</td><td>5736785</td><td>1998-04-07</td><td>Chiang et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>11</td><td>5796170</td><td>1998-08-18</td><td>Marcantonio</td><td></td><td></td><td></td></tr><tr><td>107</td><td>12</td><td>5798909</td><td>1998-08-25</td><td>Bhatt et al.</td><td></td><td></td><td></td></tr><tr><td>1072</td><td>13</td><td>5801432</td><td>1998-09-01</td><td>Rostoker et al.</td><td></td><td></td><td></td></tr></tbody></table>		init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass	107	1	3790866	1974-02-05	Meyer et al.					2	5045921	1991-09-03	Lin et al.					3	5397917	1995-03-14	Ommen et al.					4	5438216	1995-08-01	Juskey et al.					5	5490324	1996-02-13	Newman					6	5583378	1996-12-10	Marrs et al.					7	5578869	1996-11-26	Hoffman et al.					8	5642261	1997-06-24	Bond et al.					9	5648679	1997-07-15	Chillara et al.					10	5736785	1998-04-07	Chiang et al.					11	5796170	1998-08-18	Marcantonio				107	12	5798909	1998-08-25	Bhatt et al.				1072	13	5801432	1998-09-01	Rostoker et al.			
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*John H. Zelle* 10/13/03

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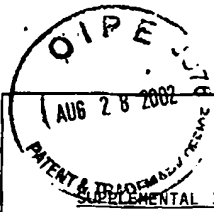
### US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
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<input type="checkbox"/>	2	20020180040	2002-12-05	Camenforte et al.	A1		
<input type="checkbox"/>	3	20020053731	2002-05-09	Chao et al.	A1		
<input type="checkbox"/>	4	20020072214	2002-06-13	Yuzawa et al.	A1		
<input checked="" type="checkbox"/>	5	20020096767	2002-07-25	Cote et al.	A1		
<input checked="" type="checkbox"/>	6	20020098617	2002-07-25	Lee et al.	A1		

Signature

Examiner Name	Date
<i>Amir A. Jarnal</i>	10/13/3



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<i>AT</i>	AA1	5,291,062	03/1994	Higgins, III			
	AB1	5,572,405	11/1996	Wilson <i>et al.</i>			
	AC1	5,583,377	12/1996	Higgins, III			
	AD1	5,691,567	11/1997	Lo <i>et al.</i>			
	AE1	5,835,355	11/1998	Dordi			
	AF1	5,883,430	03/1999	Johnson			
	AG1	5,894,410	04/1999	Barrow			
	AH1	5,901,041	05/1999	Davies <i>et al.</i>			
<i>AT</i>	AI1	5,905,633	05/1999	Shim <i>et al.</i>			

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
<i>AT</i>	AJ1	JP 11-17064	01/1999	Japan	H01L	23/14	Yes No
<i>AT</i>	AK1	JP 11-102989	04/1999	Japan	H01L	23/12	Yes No
<i>AT</i>	AL1	JP 7-283336	10/1995	Japan	H01L	23/12	Yes No
<i>AT</i>	AM1	JP 10-247702	09/1998	Japan	H01L	23/12	Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<i>AT</i>	AN	1	English-language Abstract of Japanese Patent Publication No. 11-017064, 1 Page (January 22, 1999 - Date of publication of application).
	AO	1	English-language Abstract of Japanese Patent Publication No. 11-102989, 1 Page (April 13, 1999 - Date of publication of application).
	AP	1	English-language Abstract of Japanese Patent Publication No. 07-283336, 1 Page (October 27, 1995 - Date of publication of application).
	AQ	1	English-language Abstract of Japanese Patent Publication No. 10-247702, 2 Pages (September 14, 1998 - Date of publication of application).
<i>AT</i>	AR	1	Copy of International Search Report issued July 25, 2002 for Appin. No. PCT/US01/44955, 4 pages.

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<i>OK</i>	AA2	5,953,589	09/1999	Shim <i>et al.</i>			
	AB2	5,977,626	11/1999	Wang <i>et al.</i>			
	AC2	5,986,885	11/1999	Wyland			
	AD2	5,998,241	12/1999	Niwa			
	AE2	6,002,169	12/1999	Chia <i>et al.</i>			
	AF2	6,020,637	02/2000	Kamezos			
	AG2	6,084,777	07/2000	Kalidas <i>et al.</i>			
<i>OK</i>	AH2	6,133,064	10/2000	Nagarajan <i>et al.</i>			
	AI2	6,011,304	01/2000	Mertol			

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	AJ2						Yes No
	AK2						Yes No
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	AM2						Yes No

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OK	AA3	6,077,724	06/2000	Chen			
	AB3	6,160,705	12/2000	Stearns <i>et al.</i>			
	AC3	6,162,659	12/2000	Wu			
	AD3	6,163,458	12/2000	Li			
	AE3	6,166,434	12/2000	Desai <i>et al.</i>			
OK	AF3	6,184,580 B1	02/2001	Lin			
	AG3	2001/0045644 A1	11/2001	Huang			
	AH3						
	AI3						

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